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119
P. 98a

THE GARDEN CALENDAR

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U. S. Department of Agriculture
Bureau of Plant Industry

A radio discussion by W. R. Beattie and Geo. M. Darrow, Bureau of Plant Industry, delivered in the Department of Agriculture period of the National Farm and Home Hour, broadcast by a network of 48 associate NBC radio stations, Tuesday, October 25, 1932.

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ANNOUNCER:

In our Garden Calendar today, W.R. Beattie and Geo. M. Darrow, of the Bureau of Plant Industry, are going to tell us about the methods employed for producing new varieties of strawberries, and other small fruits to meet special market and manufacturing requirements. I'll ask Beattie to lead the discussion.

BEATTIE:

Hello folks. As Mr. Salisbury has just said, we are going to talk about the production of new varieties of small fruits today. Recently, there has been a demand for special varieties of berries that have the right color, firmness and flavor for preserving and for freezing. Occasionally, a chance seedling of some fruit gives us a fine new variety, but the greatest progress has been made where the work of originating new varieties has been carefully planned, and then carried through in accordance with the adopted plan. Mr. Darrow, will you tell the Farm and Home Hour folks about how many new varieties of strawberries, and other small fruits you and your associates in the Department have originated and introduced within the past five or six years?

DARROW:

Well, we have originated a great many - thousands in fact - but we've only actually released seven varieties of strawberries and four varieties of other small fruits. You see, - we never release a new variety until it has been given the acid test to determine its value for the localities where it would naturally be grown.

BEATTIE:

What do you mean by the "acid" test?

DARROW:

I mean that it must prove to be a better variety than any existing variety, for the region, and the purpose for which it is to be used. In the first place, it must be a strong and vigorous grower under the soil and climatic conditions of the region for which it is intended. In the second place, it must produce abundant crops of fruit that are suitable for the purpose or use to be made of them.

BEATTIE:

Speaking of uses of strawberries, we had a glass of strawberry jam on our table the other day that was made from one of your newer varieties - the Blakemore - I believe. That was about the finest strawberry preserve that I ever tasted, in fact, it was more like excellent jelly, but had all of the original strawberry flavor.

DARROW:

Yes, we made a cross of Missionary with Howard 17 or Premier in 1923 at our Plant Field Station near Glen Dale, Maryland. We set the little seedlings resulting from this cross in the fall of 1923, and the Blakemore was one of the promising selections made in 1925. The head of the research laboratories of the National Preservers Association selected the Blakemore as an outstanding variety for preserving. Later tests have shown the Blakemore to be superior, not only as a preserving berry, but as a commercial variety, especially in parts of the south Atlantic and Gulf coast States, and in southern California.

BEATTIE:

Have you introduced other good varieties of strawberries from that 1923 family of seedlings, Mr. Darrow?

DARROW:

Oh yes! Another was the Bellmar. It also resulted from the 1923 crosses. It has proved to be a good home garden, and general market sort for the Virginia-Maryland-New Jersey section, but farther south it ripens too late to be of great value for shipping to the northern markets. It has been no good in western Oregon or Washington. The Redheart was another product of our 1923 crosses, but it came from different parentage. The Redheart is especially suited for the canning industry of the Pacific Northwest. We named it Redheart on account of its rich, red flesh which is so desirable in a canning berry.

BEATTIE:

Have you any more varieties from your 1923 crosses to introduce?

DARROW:

Yes, three more new ones are to be introduced this winter. These three have exceptionally high dessert quality - being superior in that respect to any variety now in the trade, at least, that has been true wherever they have been tried. Two of these varieties, the Dorsett and the Fairfax, are being introduced for eastern regions, especially in Maryland, New Jersey, and the States situated directly to the westward. The Fairfax was named for the City and County of that name, the county being that in which Mt. Vernon, the estate of George Washington is located. The third variety is the Narcissa, named for the wife of Marcus Whitman, the Missionary Explorer of the Northwest.

BEATTIE:

You mentioned that the Dorsett and the Fairfax strawberries have exceptional quality. Have they any other special characteristics?

DARROW:

Yes, they are remarkably disease resistant. The berries are very attractive, the plants are good growers, and make excellent crops in the eastern section.

BEATTIE:

And the Narcissa - - - where does it fit into the strawberry map?

DARROW:

It is especially adapted for growing in western Washington and Oregon where it is somewhat earlier and better in quality than the Marshall. You know the Marshall has long been the standard of quality in this country.

BEATTIE:

Yes, the Marshall is hard to beat for quality. It strikes me that the bunch of crosses you made in 1923 must have kept you busy ever since?

DARROW:

Busy, I should say so, but we got several good varieties out of that lot. You see, we had been making crosses and selecting varieties before 1923. In 1920, we made crosses from which we obtained the Southland strawberry, a very sweet variety for home gardens in the South.

BEATTIE:

I suppose you have to grow a great many seedlings to the fruiting stage in order to select those that have real merit?

DARROW:

Yes indeed! We had over 11,000 seedlings, or between four and five acres of new kinds fruiting at our Bell Station near Washington the past season. We will have about 30,000 seedlings to fruit for the first time in 1933, or about 13 acres in all. This fall we set about 5,000 new seedlings at our Maryland Station; but these will not bear fruit until the season of 1934. At our Oregon station over 54,000 seedlings have fruited, and about 8,000 are due to fruit in 1933. We have another station in the strawberry district of North Carolina where a large number of seedlings are being grown. Altogether, the past spring we had over 100,000 seedlings in our fields.

BEATTIE:

What do you do with all of them?

DARROW:

Discard most of them after one or two years' trial. In 1930, and again in 1931, we retained only about 250 of the seedlings as being worthy of further trial. These were increased and tested on an extended scale, and those that were found to be superior to established commercial varieties are being named and given a place among commercial varieties.

BEATTIE:

Say Darrow, it must be an endless job to keep track of so many selections?

DARROW:

Yes, quite a job, but we don't think of naming them until they grow up, and prove that they are worth naming. We have a system of numbering that is really very simple and effective, and they are known only by number until we decide that they are worth giving names.

BEATTIE:

How do you introduce these new varieties, and how do you get them into the hands of the commercial growers?

DARROW:

We furnish a supply of the plants to a number of State experiment stations and selected strawberry plant growers. They make a careful trial of the variety for their regions, then, if the variety proves of merit for a region, the plants are placed on sale. A new variety may prove valuable for a particular region, but inferior to some of the older sorts for another section. The Department has none of these plants for sale or distribution.

BEATTIE:

Has your plant breeding work been confined to strawberries?

DARROW:

By no means. We've been working with raspberries, blackberries, dewberries, and a number of other small fruits. For example, the Potomac raspberry is being introduced this winter. It is a purple raspberry which is free from mosaic disease. In fact, it is hardier, more resistant to the common raspberry diseases, more vigorous and productive, and better suited for canning and preserving than present purple varieties.

BEATTIE:

Why did you name it Potomac?

DARROW:

It was named Potomac because it was originated at our Bell Station near Glen Dale, Maryland, only a few miles from Washington and the Potomac River.

BEATTIE:

Tell us, how do you produce a purple raspberry?

DARROW:

By crossing a black variety with a red variety. The Potomac is a good example. Its parents are the Farner, a black variety, and the Newman, a red raspberry. The Potomac is especially adapted for preserving, because of its high pectin content and tart flavor. Very few varieties of either strawberries or raspberries will make good jelly without the addition of apple juice, or something to give them pectin. The Blakenore strawberry and the Potomac raspberry are exceptions, and that puts them in a class by themselves when it comes to preserving.

BEATTIE:

That explains why our strawberry preserves made from Blakenore berries jellied so nicely, doesn't it?

DARROW:

Exactly so, and the Blakenore is now being very largely used in the sections where strawberries are grown for preserving.

BEATTIE:

That, Farm and Home Hour folks, will give you some idea of how new varieties of strawberries, and other small fruits are created by the workers in the Department. This type of work is being constantly carried on in many lines with results that are similar to those obtained by Mr. Darrow and his associates. All right, Mr. Salisbury.